Remarks

The § 102 (b) Rejections of Claims 1, 4-5, and 7-11

The Examiner has rejected Claims 1, 4-5, and 7-11 under 35 U.S.C. §102 (b) as anticipated by United States Patent No. 5,889,883 to Simpkins, et al. ("Simpkins" or "the Simpkins patent"). Applicants respectfully traverse these rejections and request reconsideration.

Independent Claim 1 of the instant application claims a switch operatively arranged to control an illumination source plus a means for sensing inactivity of the switch and for turning off the illumination source after a predetermined time period of inactivity. This is described in the specification at paragraph 0021 and in Figure 1 describing how microcontroller U3 polls switch E for activity and time since last activity. If there is no activity on switch E after a predetermined period of time all illumination is turned off. Any activity on switch E resets the time to zero and the lights stay turned on. This operation is further described in the specification, most notably in Paragraphs 00025 and 0026.

In summary, the microcontroller in the instant invention senses inactivity in the switch and turns off the light after a predetermined period of inactivity is reached.

In contrast, in the Simpkins patent, the microprocessor monitors different parameters. In contrast, as stated above, the microcontroller measures inactivity of the light switch for a predetermined amount of time not a predetermined amount of voltage. Moreover, the microprocessor in Simpkins acts to turn on the light source(s) while in the instant application the microcontroller acts on the switch by turning it off. This can be seen in Simpkins in co. 2, lines 61-65 stating that, "the processing unit measures the time interval required for the capacitor to charge to a predetermined voltage threshold." This is seen in col. 5, lines 16-26 of the Simpkins patent describing how the interposing of a banknote between the light source and the photodetector activates the microprocessor to turn on the light source.

Similarly, in the embodiment depicted in Figure 3 of the Simpkins patent and described in col. 9, lines 22-45 of Simpkins, microprocessor 310 controls switch 360 which controls whether illumination sources 340 and 350 are turned on or off. Applicant courteously notes that the microprocessor in Simpkins does not monitor the inactivity of switch 360 over a

predetermined time but rather, "regulates charge time intervals of the capacitors 401-403 in the multichannel photodetector interface circuit by controlling the timing of the activation and deactivation of the photodetector sets 380 and 390, and charge time interval for each of the reset switches 411-413." (See Simpkins, col. 9, lines 38-42. Emphasis added.) In other words, the microprocessor in Simpkins controls the photodetectors and the time to charge reset switches. Applicants courteously notes that photodetectors are to even discussed or mentioned at all in the instant application and respectfully reiterates that the means for sensing inactivity of Claim 1 of the instant application acts over a predetermined amount of time but does not control the length of that predetermined amount of time.

"A claim is anticipated only if each and every element as set forth in the claims is found, either expressly or inherently described in a single prior art reference." *Vandergaal Bros. v. Union Oil of California*, 814 F.2d 628, 631; 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). MPEP § 2131. (Emphasis added.) It can be seen that Simpkins does not describe each element of independent Claim 1 as set forth in that claim. In the instant application, the means for sensing inactivity (the microcontroller) monitors inactivity of a light switch and then turns off the light switch if the inactivity is maintained over a predetermined time interval. In Simpkins, the microcontroller turns on the light switch and measures the time interval for one or more capacitors to charge. Consequently, the Simpkins patent fails to disclose the means to sense inactivity in a light source switch and to turn that switch off as is set forth in independent Claim 1. For this reason, the Simpkins patent fails as a reference under § 102 (b) to anticipate Claim 1 of the instant application. Applicants respectfully request reconsideration and passage to allowance of Claim 1.

Claims 4-5 depend from Claim 1 and thus incorporate all the limitations of that claim. Because, as discussed above, the Simpkins patent fails to anticipate all the elements of Claim 1, it also fails to anticipate Claims 4-5. Applicants respectfully request the removal of the rejections of Claims 4-5 and passage to allowance of those claims.

Similarly, the Simpkins patent fails to anticipate independent Claim 7 of the instant application. First, Claim 7 claims at least one switch operatively arranged to control a power supply. The Simpkins patent fails to even disclose a power supply, let alone a switch that controls a power supply. Second, Claim 7 claims a means for sensing inactivity of the at least one switch and turning off that switch. As discussed above, Simpkins fails to disclose any sensing device that monitors or senses inactivity of a switch and turns off that switch after a predetermined time period of inactivity. For these reasons, Applicants respectfully submit that the Simpkins patent fails as a reference under § 102 (b) to anticipate Claim 7. Applicants courteously request reconsideration and passage to allowance of Claim 7.

Claim 8 depends from Claim 7 and thus incorporates all the limitations of that claim. Because, as discussed above, the Simpkins patent fails to anticipate all the elements of Claim 7, it also fails to anticipate Claim 8. Applicants respectfully request the removal of the rejections of Claim 8 and passage to allowance of that claim.

Independent claim 9 claims a method for turning off a source of illumination in a microscope including the steps of monitoring the activity of a light illumination switch and turning off the illumination source after a predetermined period of inactivity. Similar to the discussion above, Applicants courteously point out that there is no disclosure in Simpkins of a device that measures activity or inactivity of a switch and turns off the switch after a predetermined amount of time of inactivity. As noted above, the microprocessor in Simpkins does not measure or monitor inactivity of a switch over a predetermined amount of time. The microprocessor measures time to charge for one or more capacitors but does not act after a predetermined time interval has expired. Applicant notes that the time to charge as described in Simpkins may be variable but the predetermined period of time in claim 9 is invariable. Thus, the Simpkins patent fails as a reference under § 102 (b) as the microprocessor disclosed in Simpkins discloses a microprocessor that measures time not activity/inactivity of a switch over a predetermined period of inactivity as set forth in Claim 9. Applicants respectfully request reconsideration and passage to allowance of Claim 8.

Claims 10-11 depend from Claim 9 and thus incorporate all the limitations of that claim. Because, as discussed above, the Simpkins patent fails to anticipate all the elements of Claim 9, it also fails to anticipate Claims 10-11. Applicants respectfully request the removal of the rejections of Claims 10-11 and passage to allowance of those claims.

Moreover, Applicants specifically traverse the rejection of dependent Claim 10. The Simpkins patent fails to disclose a method of turning off a light source including monitoring a logic level at the light switch terminal and turning off the illumination switch when a transition in the logic level occurs. Applicants respectfully note that the microprocessor in Simpkins monitors charge time of one or more capacitors and then acts to turn on a light switch, not turn off a light switch . For this addition reason, Applicants respectfully request reconsideration of the rejection of Claim 9 and passage to allowance of that claim.

The Rejection of Claim 2, 3, and 6 under 35 U.S.C. § 103 (a)

The Examiner has rejected Claims 2-3 and 6 under 35 U.S.C. §103 (a) as obvious over the Simpkins patent. Applicants respectfully traverse these rejections and request reconsideration.

To establish a *prima facie* case of obviousness the reference must teach or suggest all limitations of the claim at issue. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Applicants respectfully submit that the Simpkins patent fails to disclose, teach or suggest the limitation of Claims 2, 3, and 6. Applicants courteously point out that claims 2, 3, and 6 all depend directly or indirectly from independent Claim 1 and thus incorporate all the elements of that claim. As pointed out above, Simpkins does not teach or suggest the monitoring of an illumination switch by sensing the inactivity of the switch for a predetermined period of time. Rather, Simpkins discloses a microcontroller that measures charge time of one or more capacitors. Further, the microcontroller in Simpkins acts to turn on the illumination switch in the disclosed device. In contrast, the microcontroller in the instant application acts to turn off the illumination switch. The fact that Simpkins discloses measuring a time interval for charging a capacitor does mean that Simpkins teaches or suggests measuring inactivity in a switch over a

predetermined (or already measured) period of time as is claimed in Claims 2, 3, and 6. Therefore, Simpkins fails to render Claims 2, 3, and 6 obvious under § 103 (a) because it does not suggest or teach in any way the turning off of a light switch by monitoring that switch for a predetermined period of time. Applicants respectfully reconsideration and passage to allowance of Claims 2, 3, and 6.

Conclusion

Applicant respectfully submits that the present application is now in condition for allowance, which action is courteously requested. The Examiner is invited and encouraged to contact the undersigned attorney of record if such contact will facilitate an efficient examination and allowance of the application.

Respectfully submitted,

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